DOCUMENT RESUME

ED 114 631 CE 005 497

AUTHOR Wright, Chester; And Others
TITLE Managing Employee Development: A Step-By-Step Approach.
INSTITUTION Civil Service Commission, Washington, D.C. Bureau of Training.
NOTE 17p.

EDRS PRICE MF-$0.76 HC-$1.58 Plus Postage
DESCRIPTORS Educational Resources; *Guides; Learning Processes; Needs Assessment; *Organizational Development; *Personnel Management; Program Content; Program Evaluation; *Systems Approach; Teaching Methods; Training Objectives

ABSTRACT

A guide for agencies in setting up new employee development programs or a tool for assessing existing ones, the paper presents an eight-step process for organizational training. Step 1 commences with the identification and ranking of learning needs, or conducting a needs assessment. Step 2, selection of learning objectives, includes a job analysis and job performance standards (terminal performance objectives and interim objectives). Step 3 focuses on the selection of learning content while Step 4 is directed toward the selection of learning approaches for training and education. Step 5 deals with the selection of learning resources (resource adequacy and cost/value analysis) and is followed by Step 6, the selection of participants. Step 7, conduct of the learning experience, considers the learning environment, the learning process, and the learning technology. The concluding step involves evaluation (inputs, implementation, outputs, and results) as well as feedback. Although the eight steps may be described as a learning sequence, there is a constant process of interaction between steps. (EA)

**********
* Documents acquired by ERIC include many informal unpublished *
* materials not available from other sources. ERIC makes every effort *
* to obtain the best copy available. Nevertheless, items of marginal *
* reproducibility are often encountered and this affects the quality *
* of the microfiche and hardcopy reproductions ERIC makes available *
* via the ERIC Document Reproduction Service (EDRS). EDRS is not *
* responsible for the quality of the original document. Reproductions *
* supplied by EDRS are the best that can be made from the original. *
**********

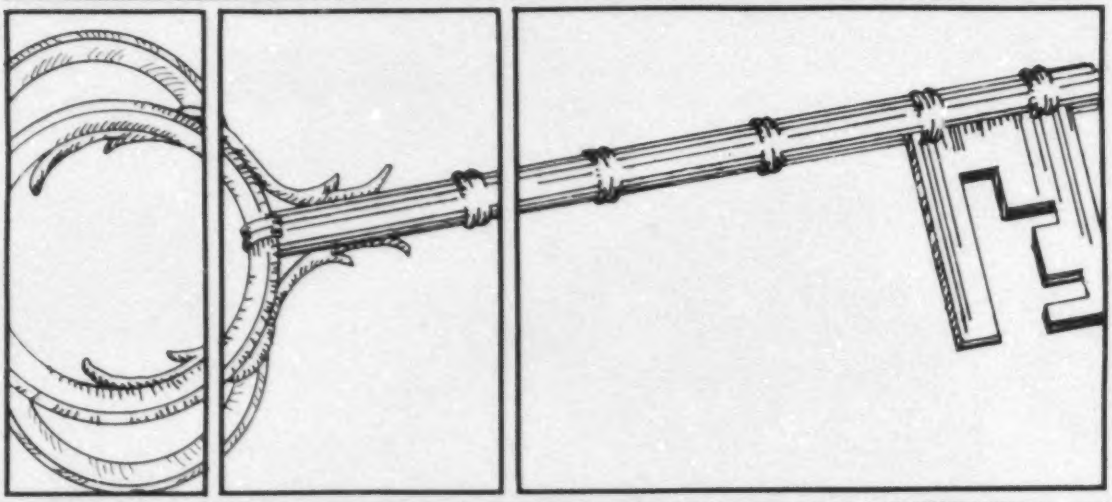
ED1146631

CE

NOV 3 1975

# Managing Employee Development

## A Step-by-Step Approach



U.S. Civil Service Commission / Bureau of Training

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

CE005497

# preface

## managing employee development: a step-by-step approach

The idea of developing the Federal workforce to its fullest potential has been attractive to Government managers for some time. Since the passage of the Government Employees Training Act in 1958 most agencies have encouraged self-development and have conducted training for their employees on a regular basis. Programs for employee development have evolved, sometimes in an orderly way and sometimes haphazardly.

At the same time, the U.S. Civil Service Commission has been expanding ts own role in the teaching arena. A recent re-evaluation of that role has resulted in a commitment to more direct and active support for systematic and better executed employee development throughout the Federal service.

This paper is suggested by the Commission for use either as a guide for setting up new employee development programs or as a tool for assessing existing ones. It is hoped that the information contained here will be helpful to both managers and trainers in planning, presenting, and evaluating effective training programs.

# contents


page

The authority to train ..... 2

Management's involvement in the training process ..... 3

The employee development process ..... 4

- Identification and ranking of learning needs ..... 4
- Selection of learning objectives ..... 5
- Selection of learning content ..... 6
- Selection of learning approaches ..... 7
- Selection of learning resources ..... 8
- Selection of participants ..... 9
- Conduct of the learning experience ..... 9
- Evaluation and feedback ..... 11

Questions to ask in appraising the employee development program ..... 13



United States Civil Service Commission / Bureau of Training
Washington, D. C.

# The authority to train

Employee training in the Federal service is authorized by the Government Employees Training Act of 1958. According to the Act the goal of training is to assist management to:

1. Achieve efficiency and economy in the operation of Government;
2. Provide means for the development of maximum efficiency in the performance of official duties by employees;
3. Establish and maintain the highest standards of performance in the transaction of public business; and
4. Install and utilize effectively the best modern practices and techniques which have been developed, tested, and proven within and outside of Government.

In order to achieve the proposed results, Congress has assigned to each Federal agency the responsibility for establishing and operating training programs for its employees based on regularly conducted reviews of its needs and requirements. The Civil Service Commission was designated as the manager of Federal training activities to facilitate agency goal achievement and assure compliance with the law.

As part of its responsibility for providing assistance to departments and agencies, the Commission has developed guidelines for framing an employee development program which both answers the needs of the organization and is consistent with Federal laws and regulations. This paper will explain the procedure for administering a systematic employee development effort.

# Management's involvement in the training process

Employee development, as the term is used here, means any planned effort to alter employee behavior in relation to the performance of present or potential work by exposing the employee to selected learning experiences. The nature of employee development makes it a natural and logical part of the overall management function of an organization. That is, it is subject to the same influences which demand other management decisions. The need for training would not exist if, for instance, there were no changes in policy, or necessity for improving production, or desire to develop better management capabilities.

Through a planned employee development program, an agency may train and educate its workforce in areas of anticipated need, and thus solve potential problems before the need becomes debilitating. It should be emphasized that training and education of employees is just one possible solution to *some* of an organization's problems. Whether this type of solution is workable depends on the unique needs of the organization. A discussion on determining an agency's needs will be included in a later section; however, it may be said here that employee development can have measurable benefit for both the ongoing and the proposed operations of any organization.

Just as training and education of employees helps improve the organization's functioning, continuous input from the organization must be used to keep the employee development process at its highest level of effectiveness. However well the process is conducted from a training standpoint, it means nothing if it has no benefit on the total organization output. Effectiveness is best measured by how well an organization's employee development program answers its needs—needs which are created, for instance, by legal requirements, current policies, availability of skilled personnel, or how well the employees perform their assigned tasks.

To thoroughly evaluate the worth of employee development, trainers and managers must consider not only the effectiveness of the program in responding to the organization's needs, but also the relative costs of alternative actions—including both training and non-training solutions. An analysis of cost vs. benefit enables managers to assign an accurate price to training and thus to plan and budget specifically for it. This is imperative, as it places employee development in its proper position as a management instrument. At the same time, decisions will be facilitated because the potential value of training and education is known.

# The employee development process

Each agency (or organization) has the task of designing an employee development program suited to its own needs, as the agencies differ according to their special functions and the requirements placed on them. In order for employee development to make its contributions (and achieve the kind of return on investments which was envisioned in the Government Employees Training Act) decisions should be made in a systematic and rational way. This section details a process for discovering and meeting training and education needs that can be adapted for use by any agency. It consists of eight major steps:

1. Identification and ranking of learning needs
2. Selection of learning objectives
3. Selection of learning content
4. Selection of learning approaches
5. Selection of learning resources
6. Selection of participants
7. Conduct of the learning experience
8. Evaluation and feedback

Although the steps are not necessarily sequential, nor the process an uninterrupted flow, each step is important in its own right. Some programs may require additional considerations, but very few successful programs will be able to eliminate any of these steps altogether. The following sections explain each step of the process in greater depth.

## • Identification and ranking of learning needs

### Identifying Learning Needs

In order to find the proper emphasis for the employee development function, it is first necessary to know the needs of the organization served by it. All of an agency's requirements, internal or external, continually dictate changes in policy and performance. Thus there are inevitable differences between present capability and what is desired. These differences are the organization's needs; some of them are learning needs and therefore are the concern of employee development.

Needs that involve the workforce are described in terms of performance discrepancies. So the first question to ask in identifying those needs is, "What is the difference between what is being done and what should be done?" If the discrepancy does not involve a lack of skill, knowledge, or ability, then other factors such as poor job circumstances or shortage of resources should be examined to determine possible obstacles to performing as desired.

In other words, the next question to be asked is, "Can the need be answered by other means than a learning situation?" If equipment is antiquated, if leadership is absent or inept, or if jobs are poorly structured, some of the abilities that do exist within the workforce will remain unused. Thus, part of the process of identifying learning needs is to take all reasonable steps to make certain that learning will supply the missing ingredient, and that some other kind of action by the organization will not provide a better solution.

Foreseeably there are many situations that could call for additional skills, knowledge, or abilities. The following circumstances commonly generate such needs:

1. A change in mission or program
2. The introduction of new technology
3. New work assignments for employees
4. The unavailability of certain skills
5. A need to maintain proficiency or improve present performance
6. Anticipation of future staffing needs

In the first four situations, the need for training is relatively apparent. Except by chance, the employees concerned will not know or be able to do what is necessary without the benefit of some kind of learning experience. The fifth

situation is less clear cut. The amount of training needed to keep up or improve present performance will vary from person to person, and different kinds of performance improvements may be of differing value to the organization even if the cost of making those improvements is the same. The final situation above presents a more difficult problem because of uncertainties involved in predicting future personnel activity. This is one point at which employee development specialists need to cooperate with other staff specialists, in this case manpower or staffing experts.

### Ranking the Learning Needs

When it has been determined which of the organization's needs can be augmented by some type of learning experience for employees, these learning needs should be ranked according to priority by the responsible manager. This is a managerial task which applies to all aspects of organization planning as well as to employee development. In setting priorities, legal requirements may be the first consideration, followed by the health and safety of employees, the need to carry out the organization's mission, and the relative efficiency of any course of action. In addition, managers may wish to take into account public policy, career opportunities for employees, and a rough cost/benefit comparison of prospective solutions. Again, each manager will arrive at priorities through his own assessment of his organization, so the above considerations are mentioned as suggestions rather than as hard and fast rules. Nor is it meant to imply that training is management's greatest concern. The decision to train is, like all management decisions, a function of the type of needs which exist and the resources available to meet them.

The ordering of priorities should be carried out in conjunction with the planning and budgeting process. In this way, not only will appropriate allocations of time and money be set aside for employee development and other manpower needs, but the needs will be re-examined with each budget cycle.

In order to plan and budget for training needs, it will be necessary to estimate the cost of meeting each need. Then the training alternatives can be compared, and, in addition, the price of training can be measured against the value of applying the allocations for a different use (i.e., hiring another employee rather than training present employees to handle additional tasks). A reordering of the priorities may be the emergence of additional alternatives to meeting the need.

This planning approach should lead to a ranked list of learning needs which can then be converted into operating plans for the agency. The plans specify what will be accomplished by whom and in what time frame. The cost estimates of the selected training alternatives will be incorporated into a budget request, at which point the identification and ranking of learning needs is complete.

## • Selection of learning objectives

The purpose of developing learning objectives is to describe what the learners should be able to do as a result of a learning experience. Again, in selecting objectives, it is important to keep in mind the discrepancy between present and desired performance, as this indicates exactly what change in behavior is required and aids in evaluating the development process as the realistic means of examining changing behavior.

To be most useful, the learning objectives should detail the specific behaviors which the learner will acquire. In the case of long-term education or "state-of-the-art" learning in which it is difficult to predict new developments, such specificity is not required. But in planning most learning situations there will be goals from which precise learning objectives can be formulated.

In selecting objectives, it will be helpful to ask the following questions, keeping in mind the desired performance of employees on the job:

1. What are the tasks which make up the job?
2. What are the job performance standards that can be derived from the tasks?
3. What are the terminal performance objectives of the learning experience which will lead to adequate job performance?
4. What are the interim objectives leading to adequate performance at the end of the learning experience?

### What Are the Tasks Which Make Up the Job?

The tasks which comprise a job as well as other characteristics of the job are identified through a job analysis. Answers can be found to questions such as: What knowledge/skills does the worker need to have to do the job? How much supervision will be required? Are there expectations as to the quality and quantity of the work produced? Under what working conditions will the person operate? Are

there any particular physical or mental qualifications which the employee must meet?

Obtaining a detailed job description through the process of job analysis allows for the enumeration of job performance standards.

### What Are the Job Performance Standards That Can Be Derived From the Tasks?

These standards are the behaviors expected of the workers, often stated in terms of qualitative outputs. Obviously, outputs are not always readily measurable, so some jobs may not lend themselves to as precise a description of expected performance as others. In order to clarify the manner and extent to which behaviors are affected by the learning experience, the job performance standards should be as specific as possible. The standards are used both as aids for developing appropriate learning programs, selecting specific training courses, and as a means of evaluating the programs to determine whether the desired behavioral changes occurred. The training of an employee cannot be said to be successful unless he can perform the task for which he was trained under the conditions specified in the job performance standards.

### What Are the Terminal Performance Objectives of the Learning Experience Which Will Lead to Adequate Job Performance?

Once job performance standards are derived, the first level of learning objectives should be developed. Terminal performance objectives are the behaviors which learners are expected to be capable of doing at the end of the program, and which will in turn lead to their ability to perform satisfactorily back on the job. The terminal performance objectives should be based on job performance standards (desired on-the-job behavior). Terminal objectives are excellent tools by which to measure the effectiveness of a learning experience.

In developing terminal performance objectives, it is important to bear in mind the type of situation in which the learning will take place, the universe of potential learners, and, of course, the relative importance of the job performance standards. Time, cost, and other practical considerations may restrict the scope of material covered in any program, so here again it is necessary to have a clear idea of priorities.

### What Are the Interim Objectives Leading to Adequate Performance at the End of the Learning Experience?

A second level of learning objectives should next be developed from the terminal performance objectives. These are the interim objectives. They are points designated for set intervals during the learning experience at which a certain amount of skill and knowledge acquisition is expected of the learner. Established checkpoints allow the learner and the instructor (or the person guiding the learning) to know whether or not the learner is making adequate progresss toward the endpoint. One check for adequacy of design of off-the-shelf training courses is to determine if the course includes interim objectives to monitor participant progress.

In summary, the process of proceeding from previously identified learning needs to the selection of learning objectives involves describing the behavioral changes desired of employees who participate in a learning experience. The description of expected post-learning behavior will vary in specificity depending on the reasons for wanting to influence performance (e.g., to correct a performance deficiency or to keep abreast of developments in a technical field). The expectations of behavior during and at the end of the training experience (learning objectives) can then be developed from statements about the expected job performance (job performance standards). As a general rule, the closer the relationship between the learning objectives and the job performance standards, the more likely the transfer of what is gained in the learning experience to the work situation.

## • Selection of learning content

The selection of content, or subject matter, for a learning experience (training course, on-the-job training or developmental assignment) involves answering the question, "What do individuals have to know or be able to do, that they do not know at present, in order to adequately perform the work?" Learning of the content leads to the acquisition of skills, knowledge, or abilities required for current or future tasks.

There are a number of factors which need to be considered in choosing content: its relevance to tasks actually performed on the job;

the characteristics of the learners; and its appropriate presentation within the learning experience. Specifically defined interim and terminal learning objectives provide guidelines in selecting suitable content. Subject matter should focus on enabling individuals to meet the terminal performance objectives, and thus ultimately to meet the standards set for job performance.

In the previous discussion on selecting learning objectives, it was mentioned that in some situations the learning objectives may not be very precise. The selection of content, in that case, would have to be made for other reasons than this one-to-one relationship to learning objectives. So for maintenance or "state-of-the-art" learning programs, the content would be determined by recent developments in a field.

## • Selection of learning approaches

Employee development as a planned effort includes the use of learning experiences which fall under two broad categories: training and education. The distinction between the two types of learning is important in selecting learning approaches for an employee development program. Training is a specializing process through which one learns to perform discrete tasks of varying complexity. Education is a generalizing process through which one develops an intellectual matrix to use in dealing with a wide range of unpredictable situations.

### Training

When individuals are placed in a situation where events have been arranged to ensure their experiencing what an organization wishes them to learn about, they have received training. Since training generally covers more specific subject matter than education, most of an agency's employee development efforts will be training activities of some sort. Training instances can be planned to respond to the particular learning needs of the organization.

Training experiences are developed along two major dimensions: one is the extent to which experience is formally organized in order to facilitate learning (amount of structure); the other is the extent to which the experience approaches the actual performance of the desired behavior under working conditions (degree of realism). Although it is difficult to arrange a learning situation in which both conditions operate simultaneously with an equally strong effect, they are not mutually exclusive and both have vital functions in learning. Generally speaking, structure speeds learning, while realism increases transfer of learning to the work site.

Training can be subdivided into three major approaches: classroom instruction, on-the-job training, and developmental assignments.

Classroom instruction tends to be the most structured and least realistic of these three approaches. It is any deliberate, methodical learning experience that takes place away from the work site at another site devoted exclusively to learning at that time. The degree to which this type of instruction resembles the employee's work may vary. At its most realistic, the "classroom" may be a laboratory or a simulation of the work site; here the similarity to actual job conditions may be considerable. At its least realistic, the classroom may consist of individual instruction or even directed reading.

Classroom training is most useful where many employees must be trained at once and where a close approximation of the work done in the job is either unnecessary or impractical for learning to take place. It is generally the fastest and least expensive training method.

On-the-job training (OJT) is a directed learning experience that occurs as an integral part of the work process of an organization. It is useful for training individuals or small groups. It can be successfully interwoven with classroom learning, and it permits the performance of some work during learning. In many cases OJT is used where prohibitively expensive or unduplicable equipment is necessary in the learning process. OJT is used almost exclusively to prepare employees to either perform or improve performance on the job to which they are assigned.

Developmental assignments are used when a general body of experience in a particular area is desired and cannot be obtained in the employee's current job. The assignments are generally used to broaden the knowledge of an individual in preparation for a more demanding assignment. On occasion, however, they may be used to improve performance in a present position.

A distinction needs to be made between an assignment, the primary purpose of which is development, and an assignment which is made for other reasons (i.e., to enhance the professional stature of the incumbent). Several features characterize assignments which are genuinely developmental. They are apt to be relatively short, but at the same time they will be deliberately structured so that the full range

of activities typical of the position occurs during the assignment. Also, the work products of an employee on a developmental assignment will be more closely reviewed than those of the permanent occupant of that position. Coaching and counseling will be provided on a systematic basis. As with any training, a developmental assignment must have specified learning objectives with a plan to assure their accomplishment and a method for measuring the extent to which those objectives have been reached.

While developmental assignments tend to be more realistic and less structured than either OJT or classroom training, they are not meant to be entirely similar to the employee's usual job. On the other hand, the fact that the assignment places the learner in a functioning job environment must not be allowed to obscure the necessity to organize the learning experience so that it answers his individual needs and the needs of the organization.

### Education

As previously stated, education is a generalizing process intended to prepare an individual to deal with the unexpected and unpredictable in life.

Using this definition, much of what is called education is, in fact, training. This is particularly true in the sciences and the professions. A physician is introduced to medical ethics as part of his education, while he is trained to remove an appendix. President Kennedy was a trained public speaker. When he referred to Jefferson and Descartes in making a decision of national policy, he was drawing upon his education.

An agency sends an employee to a college or university most frequently for training. A scientist learning a new process or a manager acquiring skills in planning is being trained even if the training is being provided by Harvard.

Occasionally an agency will support a purely educational program for some of its employees. Briefly, the main reasons for initiating a program of education would be: 1) to broaden an employee's outlook enabling him to move into areas where judgment is an important factor in the work either by the creation or interpretation of public policy; or 2) to re-vitalize the educational background of an employee who needs to cope more effectively with changing moral or philosophical conditions.

Factors influencing the particular approach (or approaches) to be used for a given learning experience include the job performance standards and associated learning objectives; the learning experience content; the characteristics of the learners; and the organization time constraints. A close relationship is desirable between the demands of the job and the demands of the learning experience: the previous choice of learning objectives and content will have determined this relationship to some extent already.

At this point in the employee development process, the best learning approach can be thought of as one which provides the learners with structured experience closely resembling expected on-the-job behavior. In this way the possibility of transferring to the job situation the knowledge, abilities, and skills gained during the learning will be improved.

## • Selection of learning resources

Following the selection of one or more learning approaches, it is necessary to survey the available training resources and select the appropriate one for the learning experience under consideration.

Potentially available resources to facilitate a selected learning approach range along a continuum from the time and talent of one person to the complete capability of an entire organization, including personnel, equipment, and physical facilities. Between the end points on the continuum we find both in-house resources (such as teams of instructors, selected organization units for developmental experiences, and skilled workers whose competencies can be put to use in OJT activities) and external resources (including other Government agencies, educational institutions, business firms, and individual contractors). An important governor of an agency's freedom of choice is the legal requirement that an agency first consider all alternatives within Government before considering a non-Government resource.

To complete this segment of the process, another series of questions must be answered. They are:

1. What resources exist that could deliver the chosen approach?
2. Is the resource adequate to meet the need?
3. Does cost/value analysis yield a clear signal to proceed?

### What Resources Exist That Could Deliver the Chosen Approach?

For any given approach or combination of approaches to a learning experience, there are

a variety of resources which might be applied. Within the Federal Government the alternatives are intra-agency or interagency training. Non-Government resources include State and local governments, universities and colleges, corporations, organizations, and societies which may provide one or more of the services required by the approach. The most important consideration at this point in the process is not the total number of alternative resources available for any approach to learning but rather the necessity for systematically searching for those resources that will most effectively implement a given approach.

### Is the Chosen Resource Adequate to Meet the Need?

Adequacy in the most direct and simple terms means: Can the resource or resources that have been identified do the job? If past experience is available, an answer may be reached rather quickly. If equivalent previous experience is not available, then the question of adequacy must be resolved through a number of predictors of performance. These include such things as knowledge of the organization or function where the need exists, understanding of that organization's training and development goals and policies, command of current concepts and technology required by the selected learning approach, and experience in meeting similar or related learning needs. Positive evidence on each of these, supports a conclusion that the resource will be adequate to the need.

### Does Cost/Value Analysis Yield a Clear Signal to Proceed?

Although carrying out of the process of meeting learning needs up to this point has not been without cost, the larger proportion of the investment is yet to come. Regardless of which way the preceding question was resolved, it is now necessary to conduct a detailed analysis of the investment which will be required and, to the extent possible, forecast the value to be derived from that investment before going ahead.

On those occasions when the cost/value analysis of the preferred learning approach produces a favorable prediction of return on the investment, the next step is to develop and implement the planned learning experience.

However, it may be discovered that the potential value of eliminating the need would all but be obliterated by the cost. If so, it will be necessary to examine alternatives until a cost that can be borne is matched with a satisfactory prospect of return. If the alternative learning approaches are exhausted before a solution is reached, it will be necessary to (1) redefine the need; (2) look to other alternatives (such as hiring or reassignment); or (3) defer action.

## • Selection of participants

The selection of participants for a learning experience means a thoughtful choosing among employees, as it is usually true that not all employees who might benefit from a learning program can participate. The important thing is that the selection of participants occur in a systematic fashion following carefully established and periodically reviewed criteria. To the maximum extent possible these criteria should reflect both the needs of the organization and the career aspirations of the individual.

Ideally, each employee should have a plan for individual development worked out in concert with his supervisor and (where appropriate) his development counselor. This plan should: (1) serve both the needs of the individual and the organization; (2) make clear distinctions between what the agency will do for the employee and the employee will do for himself through self-training and education; and (3) be realistic both in terms of a careful assessment of the capabilities of the individual, the economic contraints of agency budgets, and the ability of the organization to absorb, utilize, and reward improved performance or new competencies.

Carefully considered development plans involve progress in steps. This serves a multiple purpose: it means that the organization realizes some benefits from its investment within a reasonable period of time; it allows individuals to see some real progress; and it provides both the organization and the employee with periodic opportunities to pause and reassess their joint goals.

## • Conduct of the learning experience

While this section is intended primarily as a guide to those displaying or conducting a learning experience, it can also be a useful reference for selecting a training course.

The learning situation should be carried out in general conformity with well-established and

tested procedures for conducting adult learning. These procedures are essentially the same for both training and education. Following is a brief discussion of three important aspects of the learning experience describing how learning differs qualitatively from any other experience. The three factors are:

1. The learning environment: What conditions must exist for learning to occur as planned?
2. The learning process: What is the order of events in which learning occurs?
3. Learning technology: How can technology help to accelerate or enhance the learning process?

## The Learning Environment

As stated earlier, learning is experimential in nature. Therefore, the closer the learning environment to that of the worksite, the more likely it is that the learning experience will be successful—that the correct behaviors will be learned and carried over to performance on the job.

A learning experience should povide a comparatively penalty-free environment in which correct behavior can be learned and practiced. By penalty-free it is meant that incorrect performance will not be criticized or punished to the same extent that it would be if this were a working situation, nor will the learner be involved in a situation that could result in injury. The degree to which a learning situation can be penalty-free depends on the reality of the situation. Classroom learning, for example, can be made to be non-threatening while a rotational assignment may provide nearly the same punishment possibilties as a regular work assignment.

The important aspects of a job may occur over a period of days, weeks, or even months. These events must be selected out and assembled in a shortened time frame for a learning experience, but it is also necessary for OJT and developmental assignments.

## The Learning Process

Some tasks are extremely complex with more and less difficult portions of the task occurring in no particular order. Instead of taking each portion in turn, the learners in well-designed learning experiences are permitted to practice the simpler or better-known portions first, progressing to more difficult or unfamiliar portions as they gain proficiency.

1. The first thing the person guiding the experience should do is to find out what the learners already know. This knowledge allows the experienced instructor or supervisor to make last-minute adjustments to the structure of the learning experience, such as adding or excluding certain material.
2. The next step is to tell the learner how to perform a given task. Once the task has been explained, the trainer demonstrates the proper performance of the task, again explaining the what and the why of each act as it is accomplished.
3. Next, the learners explain the proper performance of the task, or other-wise demonstrate understanding. This activity represents an important internal control point. Problems in comprehension can be corrected here and not be allowed to proceed into incorrect trial performance.
4. With evidence in hand that the cognitive portions of a task have been learned, the participants are allowed to actively perform either the task or a reasonable simulation of the task. During this period the learner is guided into successful performance. One learns to do a thing right by doing it right. At this time the learners are asked to explain what they have done, and why. This provides a double check on performance, because the director of the learning experience has witnessed correct performance and received an explanation which provides evidence that it was not an accident.
5. Finally, the learner is allowed to practice correct behavior to gain proficiency. The primary determinate of the amount of practice to be provided is the cost of an error on the job. If very bad consequences will result from incorrect task performance then great care must be exercised to assure performance before a learner leaves the learning site. If, on the other hand, trifling errors can be easily corrected on the job, then the final phase of the learning experience is usually best accomplished on the job.

## Learning Technology

Modern learning technology is very much a contributing part of the employee development process. Programmed instruction, audio-visual devices, case studies, etc. (from the simple to the very sophisticated) can contribute to learning in two essential ways. First, they can be used to speed instruction; for instance, closed circuit television can permit everyone in a class to witness one demonstration rather than having it repeated for small groups. Second, they

can serve to enhance the reality of a learning experience, as in-flight simulation devices.

## • Evaluation and feedback

Evaluation is an integral and unifying component of the agency process for achieving the training goal. It serves the purpose of tying together the several separate steps in the process, providing information for guidance as the agency moves through the process, and revealing final on-the-job results which must be considered in the recurring assessment of needs. The evaluation process itself involves collecting and analyzing information at certain points in the larger employee development process and comparing the observed outcome with the original intention. The points where observation will be most productive can be divided into four categories. They are inputs, implementation, outputs, and results.

### Inputs

The inputs to the agency employee development process begin with the organization that has been established within the agency to carry out the steps of the process. One of the functions of that organization is to provide some of the inputs and coordinate others. Inputs include:

1. Learning needs, both short- and long-term
2. Objectives for the total learning structure
3. Specific learning objectives for each need
4. Plans for reaching the specific objectives, including content, approaches, timing, personnel, and resources

Each of these inputs must be evaluated at the appropriate time and with the proper methodology to facilitate timely corrective action and increase the probability of success.

### Implementation

When the inputs are activated and implementation of a learning experience begins, evaluation also begins, thus assuring an end product which meets a predetermined standard of quality or proficiency. Assurance of a satisfactory end product requires early identification and prompt correction of deficiencies as they arise during the activity (formal training, developmental assignment, etc.). As noted earlier, a necessary component in a successful development effort is a set of interim objectives. The achievement of the interim objectives is a prime source of information for quality assurance. Evaluation instruments need to be discriminatory in nature; that is, they should not only indicate the accomplishment of interim objectives, but identify the source of any deficiency—instruction, environment, course structure, etc.

### Outputs

The outputs from any successful learning activity are individuals who have demonstrated the ability to meet the expectations expressed in the terminal performance objectives. Evaluation at this point produces evidence that these expectations have been met together with evidence about the degree of change that has occurred (as a result of the learning activity) in order to confirm that the process has been effective up to this point. Further, it serves as a basis for anticipating desired changes in on-the-job performance.

### Results

The evaluation of results is completed when work performance has been observed and this evidence is then available to be used in planning future employee development. However, even if the learning experience is relevant to the job situation and the learner acquires the expected skills and knowledges, he may not necessarily apply the newly acquired skills and knowledges to the job. If this circumstance occurs, the agency must answer this question: Are the people who have been through a learning experience being positively reinforced so that they will want to apply what they have learned to the job? If this is not the reason for failure to follow through, the entire process must be re-examined to find the source of the problem.

Inputs, implementation, outputs, and results make up one dimension of the evaluation process; another dimension is the continual accumulation of feedback and its use. For each separate learning activity, evaluation takes place whenever the evidence is available. In addition, at predetermined intervals (usually oriented to the budget cycle), information about results is aggregated to achieve three purposes:

1. To make judgments about the outputs of the agency employee development program in terms of its contribution to goal achievement indicators, which include improved public service, dollar savings, the building and retention of a permanent cadre of skilled and efficient Government employees, and lower turnover of personnel;
2. To complete the evaluation process by

*measuring progress made toward the* training goal of assisting management achieve efficiency and economy in the operation of Government; and

3. To provide an information base to be used in developing plans and adjusting long-range strategies.

Clearly, active support by the organization—starting with top management—is essential to the transfer of learning to the job situation.

This includes ensuring that those who participate in a program, as well as those who do not, understand the purpose of the learning experience, the performance that is expected, and the consistent feedback needed for organizational planning.

## An Added Note About the Eight-Step Process

It is a rare circumstance when an individual responsible for training can start at the beginning of the eight-step process for all of the training of an organization. Ordinarily, all eight steps are in process at all times, with each separate set of employees at a different step of the process. A trainer wishing to apply the general approach described here will have to pick up with the world where he finds it and proceed from there.

A cautionary note is in order. While it is convenient to describe the eight steps as a learning sequence, in fact, there is a constant process of interaction between steps. For example, an investigation of learning resources may provide information that sends one back to step four—evaluation of appropriate learning approaches. These interactions may be as brief as a survey through the process in the trainer's mind to an extensive formal analysis. The potential impact of the choice determines the extent of the interaction.

The point here is that a re-tracing of steps is an expected, even necessary, part of going through the eight-step process.

# Questions to Ask in Appraising the Employee Development Program

**1. Identification and Ranking of Learning Needs**

What is the difference between what is being done and what should be done?
Can the need be answered by other means than a learning situation?
Of the learning needs identified, which are the most urgent? the most feasible in terms of the time and money available?
What portion of the total budget will be allocated to meeting these needs?

**2. Selection of Learning Objectives**

What are the tasks which make up the job?
What are the job performance standards that can be derived from the tasks?
What are the terminal performance objectives of the learning experience which will lead to adequate job performance?
What are the interim objectives leading to adequate performance at the end of the learning experience?

**3. Selection of Learning Content**

What do employees have to know or be able to do so that they can adequately perform the work?

**4. Selection of Learning Approaches**

Would some of the learning needs be better met through an educational program than through training, do they lend themselves best to classroom instruction, on-the-job training, or developmental assignments?

**5. Selection of Learning Resources**

What resources exist that could deliver the chosen approach?
Are those existing resources adequate to meet the need?
Will the use of the chosen resource be cost-effective?

**6. Selection of Participants**

Which of the employees available for a learning experience would benefit most from it?

**7. Conduct of the Learning Experience**

Are the instructional environment and time frame arranged to facilitate learning?
Are the elements of learning presented in an order which encourages thorough learning?
Does the instruction take advantage of up-to-date learning methodology and technology?

**8. Evaluation and Feedback**

Is the success of each step of the employee development program being measured as it is carried out?
Can the contribution of the employee development program toward the overall goals of the organization be assessed (i.e., achieving efficiency and economy in fulfilling its mission)?

## TO THE READER

For some time, we in the Bureau of Training have felt a concern, shared by many of you, that we need a more complete and comprehensive philosophy of training. The paper you have just read is our initial contribution to the development of such a comprehensive philosophy. Although it will undoubtedly be modified and improved, it accurately represents the current Bureau position on the important ideas discussed.

It is obvious that a great deal remains to be said about each step of the eight-step process. Work in these areas is proceeding. Studies of determining training needs, selection of participants, and evaluation are underway.

We welcome, indeed we actively need your ideas and contributions as we proceed. If you have a suggestion, an objection, or better yet if you would like to engage in a substantive dialogue with Training Leadership personnel, please write us, or call (202) 632-6165.

NOTE: This paper originated as a part of the U.S. Civil Service Commission's Training Leadership Study, prepared under the guidance of *Reginald M. Jones, Jr.*, then Director of what is now known as the Training Leadership Division. Contributing to the paper were *Chester Wright, Ruth D. Salinger,* and *Charles M. Gorton.* It was shortened and edited for publication by *Linda Armstrong* and *Janis Zimbler.* The current Director of the Training Leadership Division is *James W. Brogan.*